Fiscal Risks

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Fiscal Risk, Public Sector Balance Sheets, and Risk Management

Bonn

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Outline of Presentation

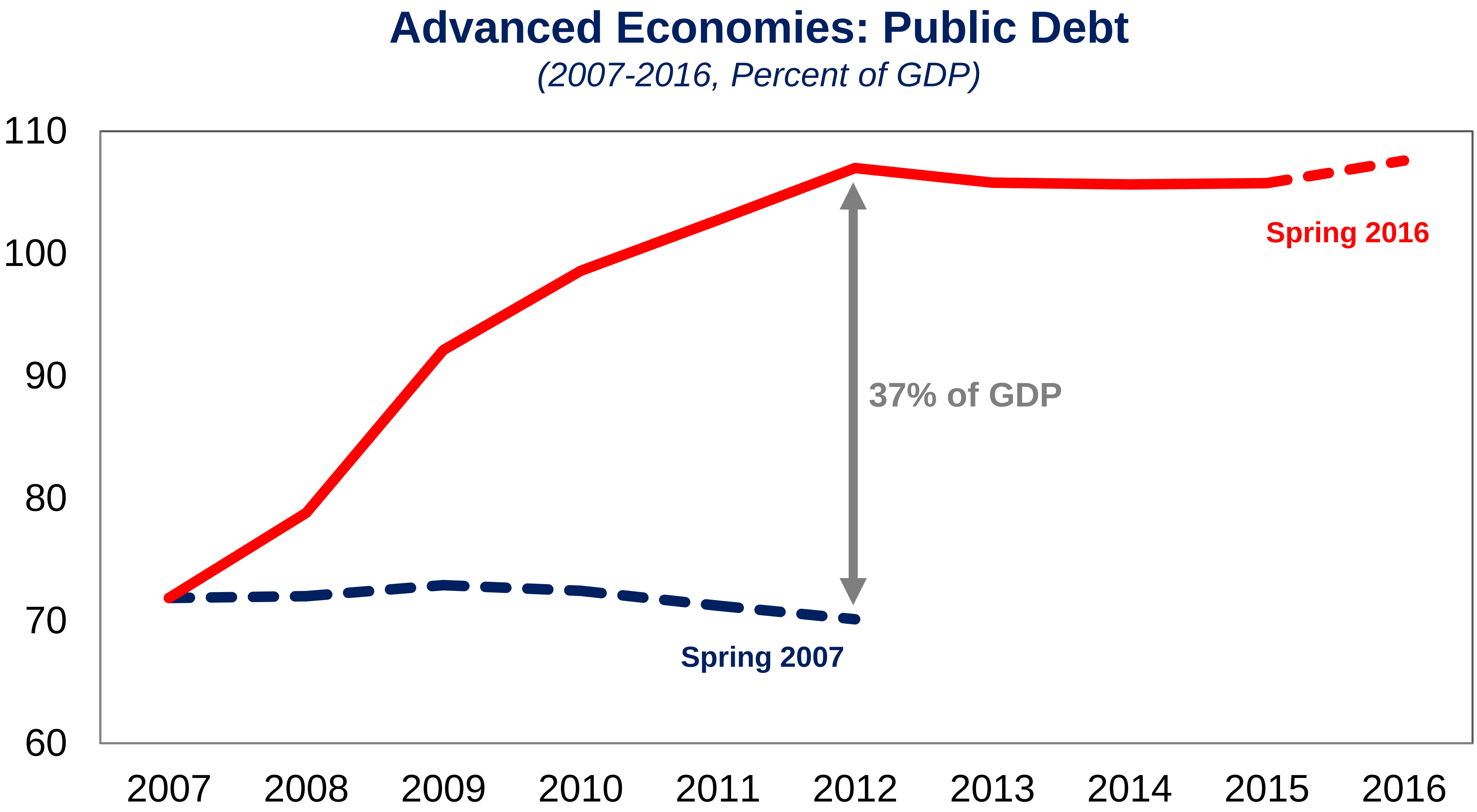
I. Why Fiscal Risks Matter

II. What have we learned?

III. Systematic Approach to Fiscal Risk

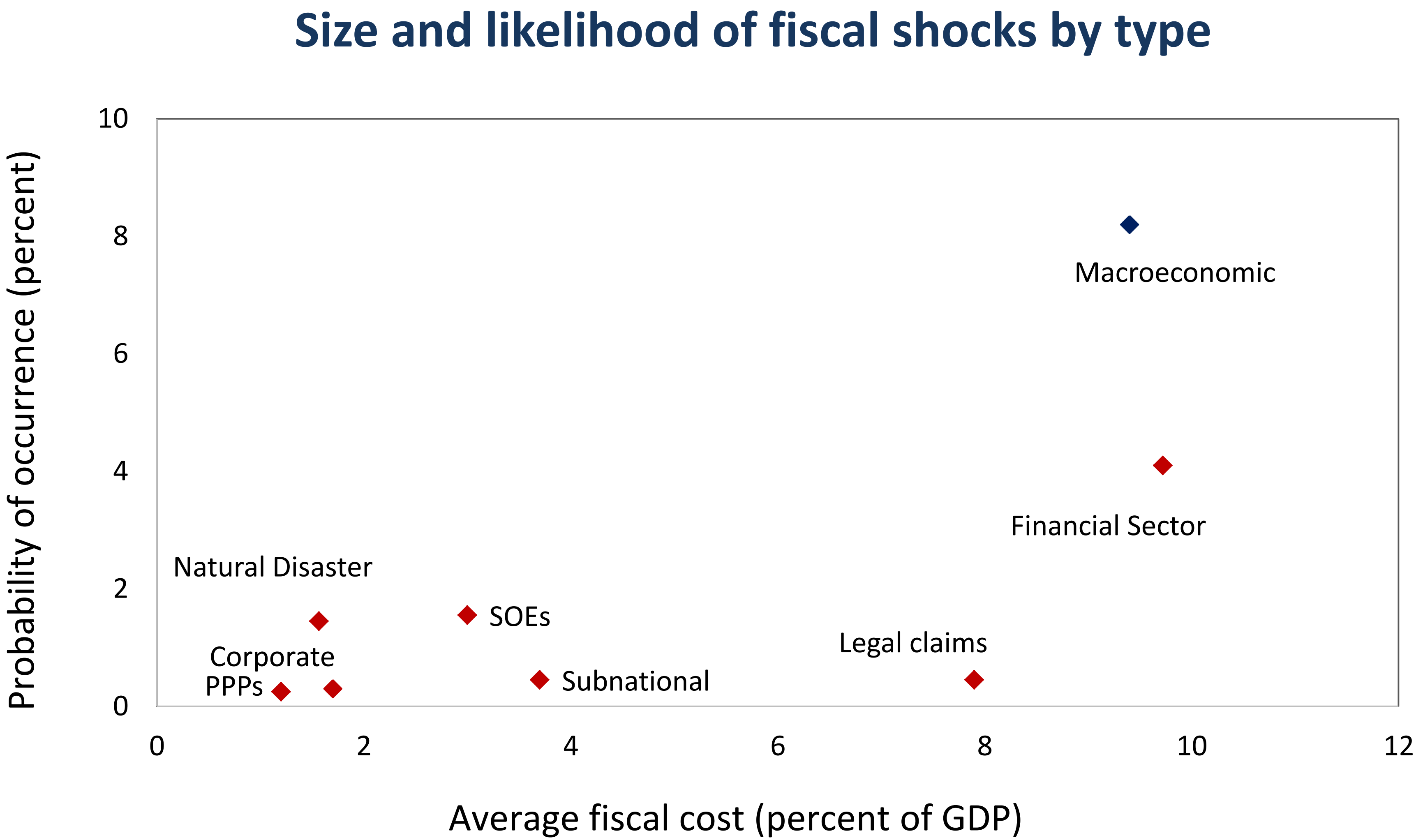
IV. The Way Forward

I. Why Fiscal Risks Matter:
Public Debt Forecasts for Advanced Economies



Source: *Fiscal Monitor* Database and staff estimates.

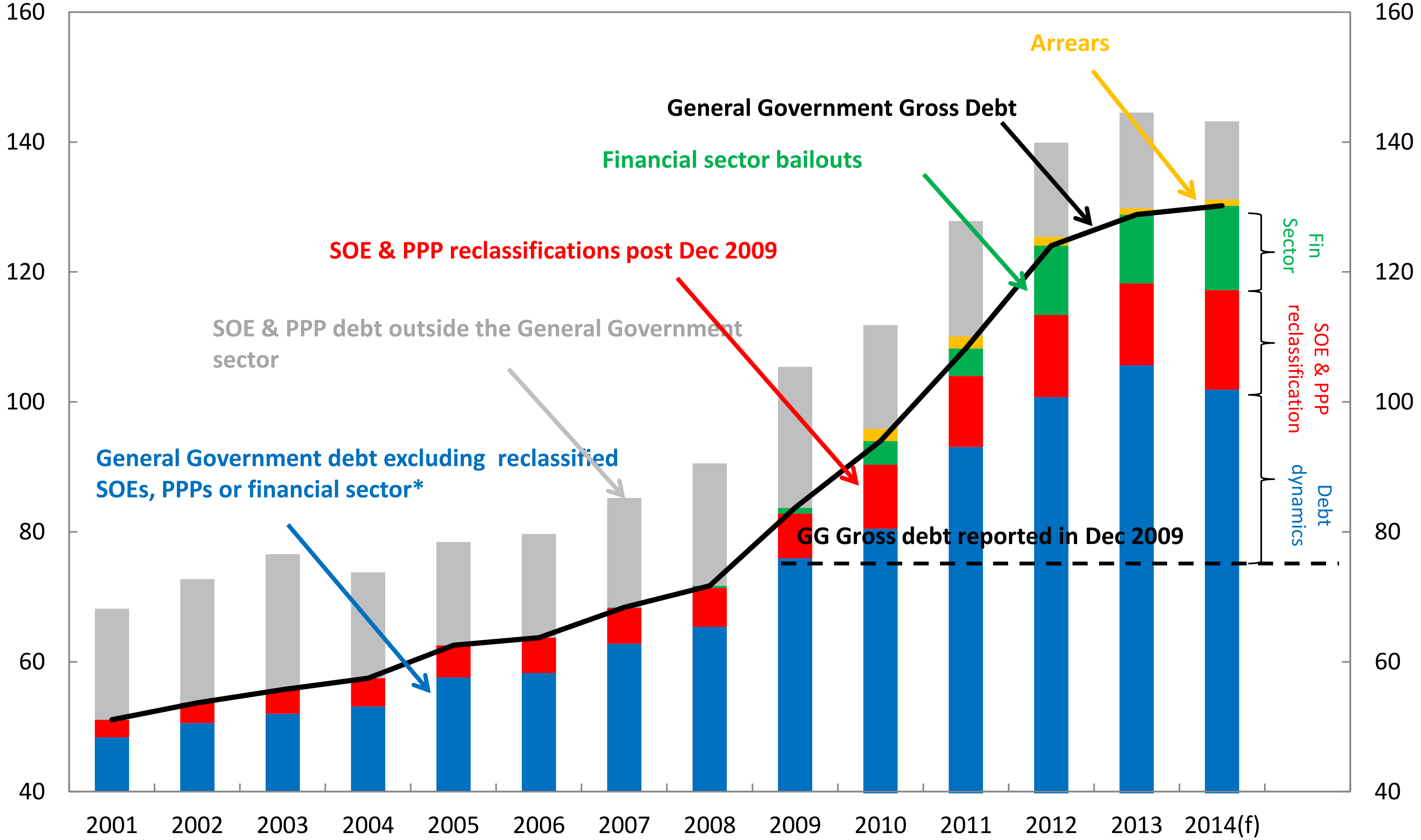
I. Why Fiscal Risks Matter
Size and Frequency



Source: *Toscani (2015). Shows average contingent liability shocks for advanced and emerging economies*

I. Why Fiscal Risks Matter

Portugal – how risks played out

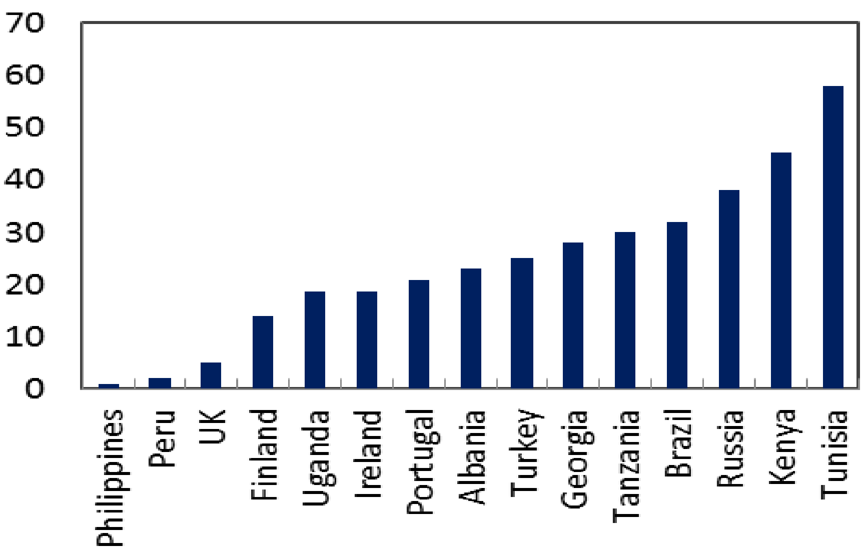


Source: *Portugal FiscalTransparency Evaluation*

II. What Have We Learned?
Fiscal Transparency Evaluations

Countries often report much less than full public sector

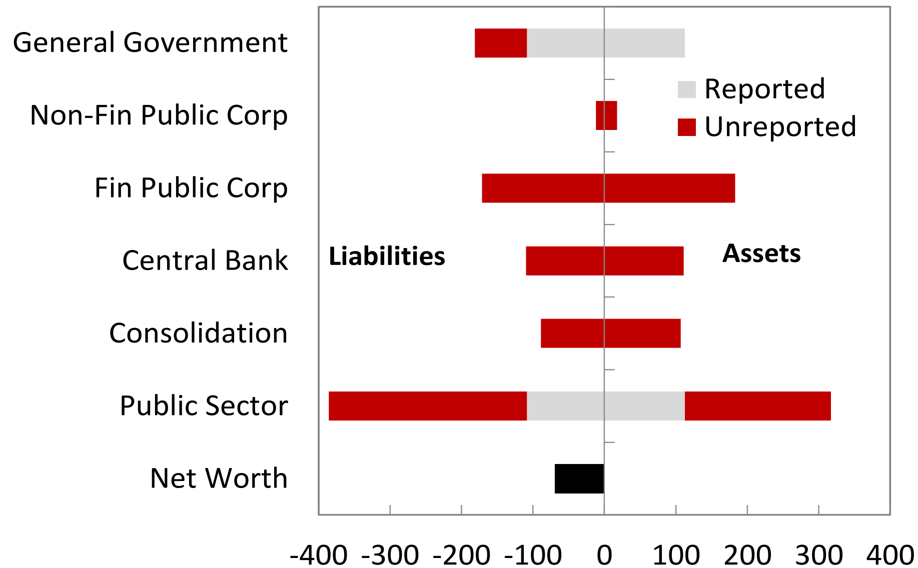
Unreported Public Sector Expenditure
(Percent of Total Expenditure)



- Improved focus on general government leaves public corporations unreported
- Large amounts of quasi-fiscal activity continues to occur outside the budget

Large gaps in public sector balance sheet

Ireland: Public Sector Balance Sheet, 2011
(Percent of GDP)



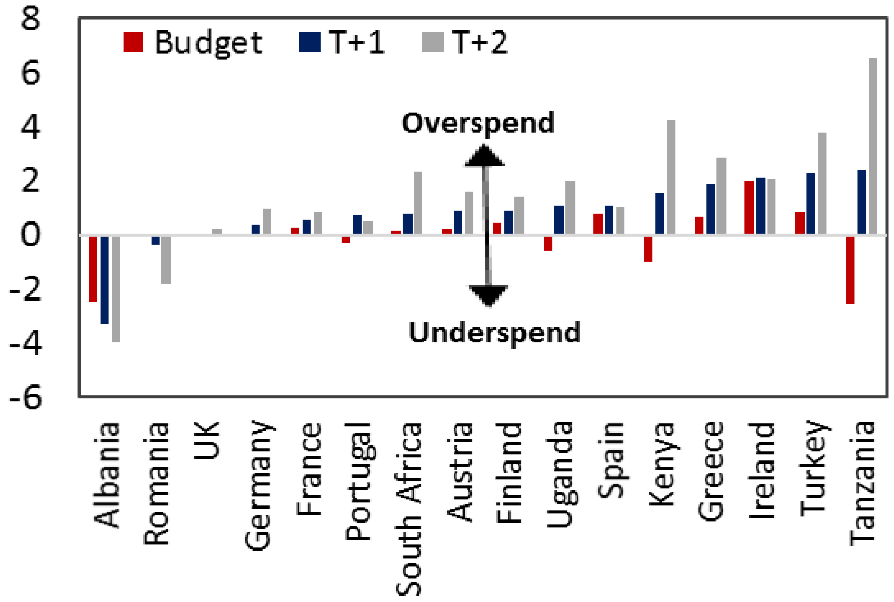
- In Ireland, only a quarter of public sector liabilities were reported.
- Reflects the temporary impact of financial sector rescue operations

Source: Various *Fiscal Transparency Evaluations undertaken over the period 2013-2016*.

II. What Have We Learned?
Fiscal Transparency Evaluations

Macro and fiscal forecasts are systematically optimistic

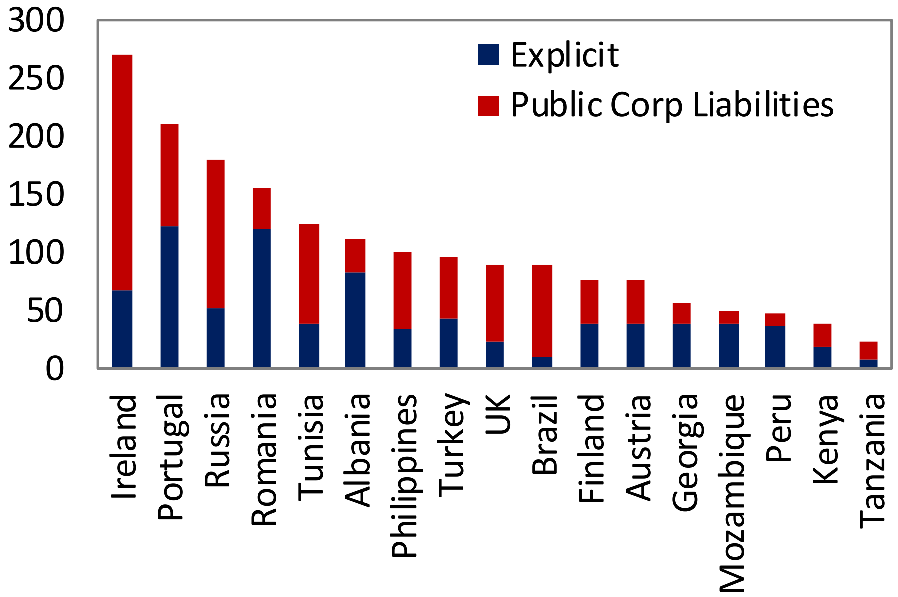
Medium Term Expenditure Forecast Errors (2000-2015) (% of GDP)



- Leads to unrealistic medium-term fiscal plans with weak credibility.

Large contingent liabilities, many of which are unreported

Contingent Liabilities (% of GDP)



- Include guarantees, PPPs, pension liabilities and public corporation liabilities.

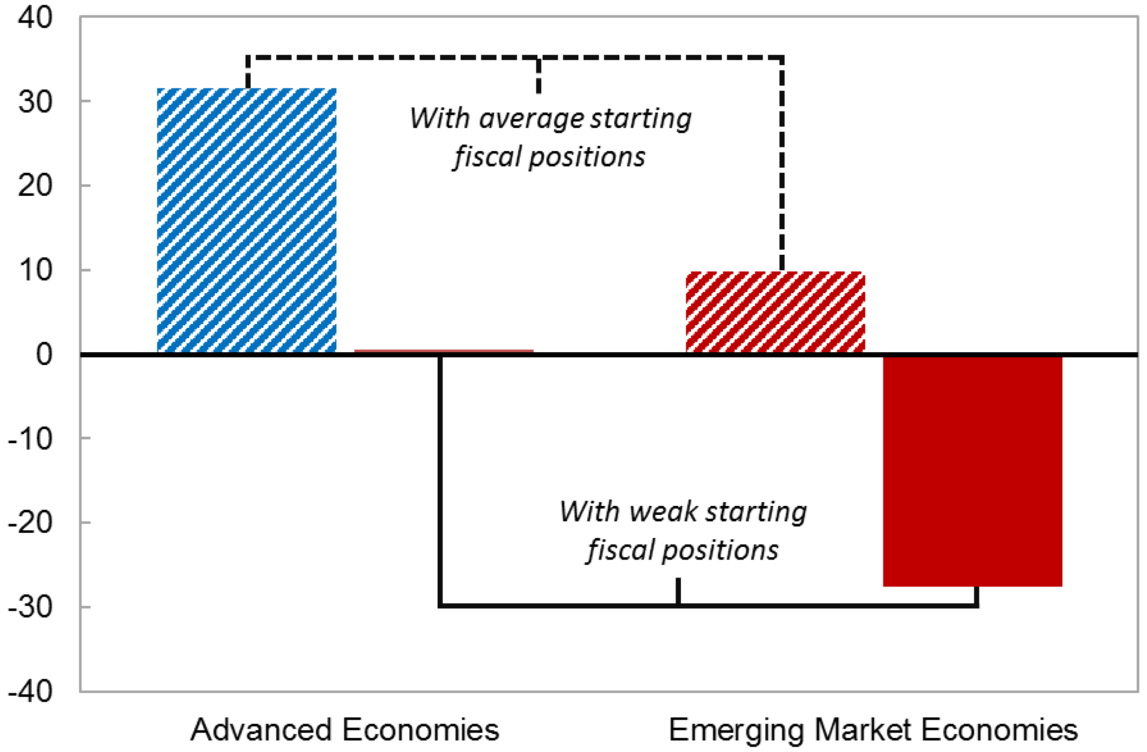
Source: Various *Fiscal Transparency Evaluations*.

II. What have we learned

If risks eventuate, fiscal can help if there are buffers

Public Spending in Financial Crises

(Percentage points)



Sources: IMF, *Fiscal Monitor*; and IMF staff estimates.

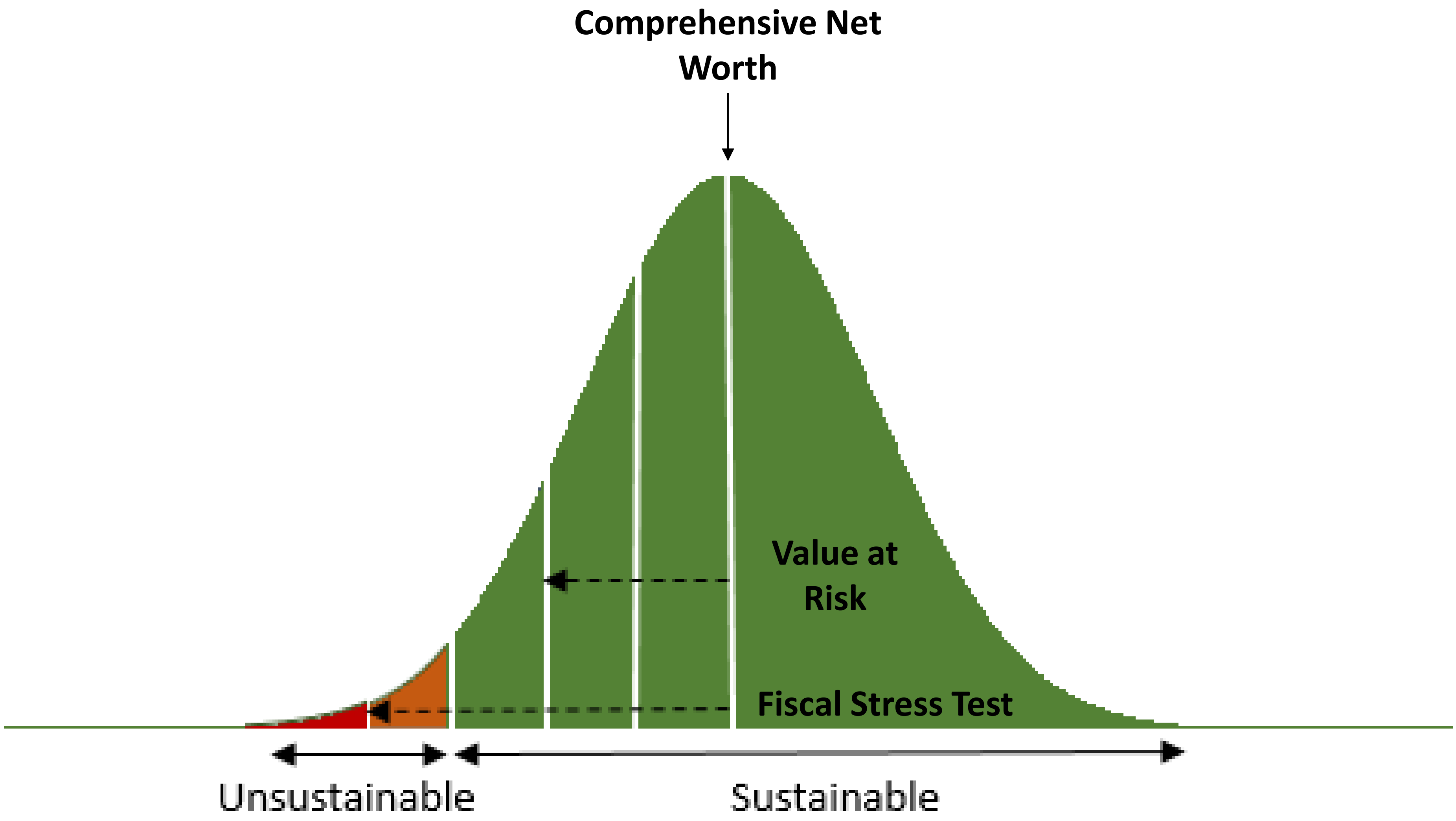
II. What have we learned

But Policy Design is Critical for Effectiveness

Feature	Optimal Design	Rationale
❑ **Targeting / Incentives**	➢ Viable institutions (screening) ➢ Conditionality ➢ Burden sharing (creditors/debtors)	▪ Moral hazard and fiscal cost
❑ **Instruments**	➢ Direct government support measures preferable over tax incentives ➢ Public recapitalization as last resort and well-designed AMCs	▪ Tax avoidance and complex tax system ▪ Moral hazard and fiscal cost
❑ **Timing**	➢ Early	▪ Minimize output and fiscal cost
❑ **Policy complementarities**	➢ Strong insolvency and bankruptcy ➢ Prudential policies	▪ Quick and efficient resolution ▪ Moral hazard

III. Systematic Approach to Risk

New Zealand's 3-step risk assessment approach



III. Systematic Approach to Risk
Comprehensive balance sheet assessment

NZ Comprehensive Net Worth

NZ$ billion		Assets	Liabilities	Net Worth
Based on accounting principles	Social	130	86	44
	Financial	122	96	25
	Commercial	23	11	13
Accounting Net Worth		**275**	**193**	**82**
Add	Contingent Liabilities	0	18	(18)
Add	NPV future expenses & revenue	785	886	(101)
Comprehensive Net Worth		**1078**	**1098**	**(20)**

*Note: Figures are illustrative only***.**

Social Assets – Tangible assets, primarily P&E, used to support the delivery of social services.

Financial and Commercial Assets – Assets held to fund contractual or social obligations such as New Zealand Superannuation.

Accounting Net Worth – Cumulative impact of past decisions

Contingent Liabilities – An estimate of the value of both contingent and implicit liabilities.

Fiscal – Estimates of the present value of future Government spending and income

Comprehensive Net Worth – Combines balance sheet, expected losses from CL realizations, and NPV of future policies

III. Systematic Approach to Risk

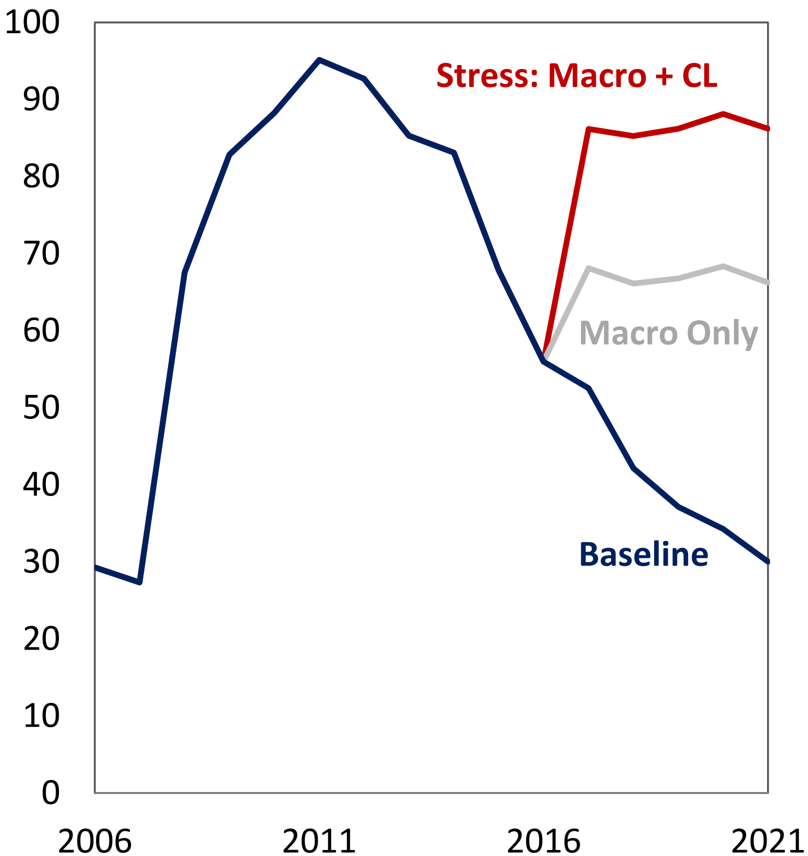
Ex ante risk analysis

- Value at risk (NZ approach):
  - Commercial banking approach to public sector financial balance sheet
  - Concerns around underlying data and models – lessons from the crisis
- Contingent Claims Analysis for implicit liabilities
  - Exploit different pricing of debt and equity to estimate expected losses.
  - Gray (2013) estimated implicit subsidy of 85bps for euro area banks
  - Lucas (2010) estimated Fannie subsidy of 35bp
  - Highly sensitive & non-linear relationship to asset values
- Judgement based (UK forthcoming)
  - Recognize the difficulty and unreliability of precise probabilities
  - Broad categorizations (high, medium, low)

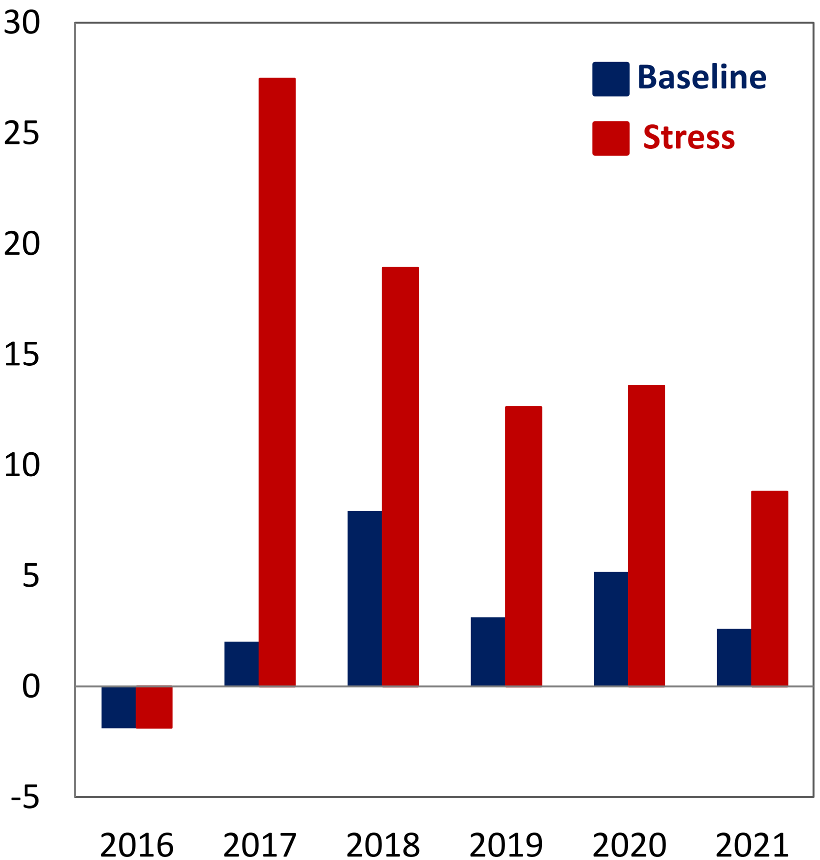
III. Systematic Approach to Risk

Worst case Fiscal Stress Testing: Iceland

Public Debt
(Percent of GDP)



Liquidity: Gross Financing
(Percent of GDP)



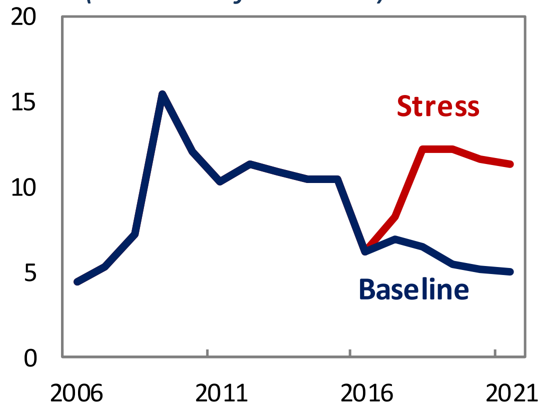
Source: IMF Staff Estimates

III. Systematic Approach to Risk

Worst case Fiscal Stress Testing: Iceland

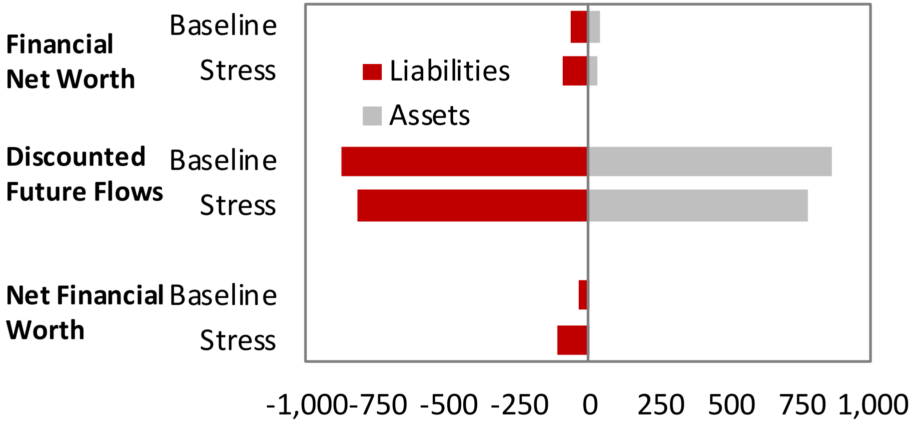
Fiscal Burden: Interest Cost

(Percent of revenue)



Solvency: Net Financial Worth

(Percent of 2017 GDP)



Source: IMF Staff Estimates

Comprehensive Balance Sheet

(Percent of 2017 baseline GDP)

	Baseline	Shock
Financial assets	**903.5**	**811.1**
Currency and deposits	9.2	9.0
Loans	8.5	8.4
Shares and other equities	17.9	9.0
Other accounts receivable	7.0	7.0
NPV Revenues	860.2	777.0
Liabilities	**942.9**	**918.6**
Securities other than shares	21.8	42.8
Loans	20.4	27.3
Insurance technical reserves	18.0	18.1
Other accounts payable	7.4	7.4
NPV Expenditures	875.3	823.0
Net Financial Worth	**-39.4**	**-107.6**
Existing Net Financial Worth	-24.3	-61.6
Future discounted deficits	-15.1	-46.0

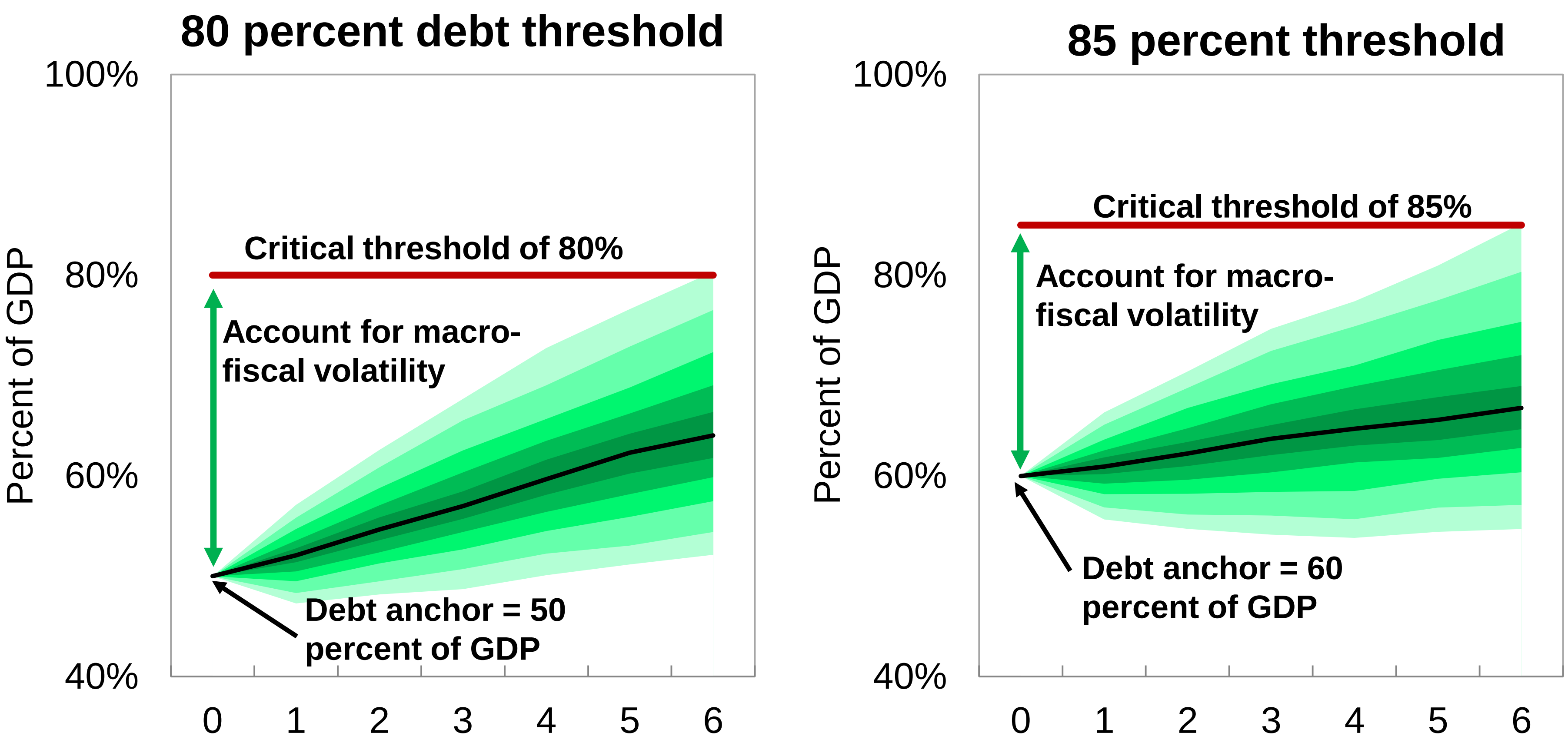
IV. Way Forward – better risk management

Fiscal Risk Management Toolkit

STEP 1: IDENTIFY AND QUANTIFY	• Identify risks • Calculate exposure and likelihood • Weigh costs and benefits of intervention
STEP 2: MITIGATE	• Cap Exposure • Regulate • Transfer
STEP 3: PROVISION	• Expense • Budget contingencies • Buffer funds
STEP 4: ACCOMMODATE RESIDUAL	• Account for in setting fiscal objectives

IV. Way Forward – fiscal policy
Accommodating residual risk in policymaking

Allowing for risk in setting fiscal rules



IV. Way forward – Balance Sheet Analysis
Improving fiscal policy and risk analysis

- **Develop a comprehensive balance sheet**
  - Complete public sector, including public corporations
  - Bring together accounting balance sheet and long-term sustainability

- **Use balance sheets to improve fiscal strategy and objectives:**
  - Move focus from debt & deficit towards net worth
  - Include balance sheet projections within standard fiscal forecasts

- **Understand and account for risks within balance sheets:**
  - Increased attention to valuation shocks to assets and liabilities
  - Identify currency, maturity and liquidity mismatches and exposures

Concluding Questions

- How should we quantify and provide for fiscal risks?
- What constitutes a strong public sector balance sheet?
- How will fiscal policy be strengthened through balance sheet analysis?